

**Abstract**

Metal bond pads are formed over active circuitry in a semiconductor chip in a reliable and cost effective manner. According to an example embodiment of the present invention, a metal bond pad is formed over circuitry in the semiconductor chip. A metal layer is formed over the circuitry and the metal bond pad, and a diffusion barrier layer is formed between the metal layer and the metal bond pad. In this manner, additional metal can be formed on the pad site using only one additional mask step, and thicker metal at the pad site improves the reliability of the chip by providing for a metal cushion at the pad useful in subsequent wire bonding processes.